

Remarks:

Claims 5, 7, 8, 11-13 are now pending in this application. Applicants have amended claims 5 and 7, added new claim 13 and canceled claims 6, 9, and 10 to clarify the present invention. Applicants respectfully request favorable reconsideration of this application.

The Examiner rejected claims 5-12 under 35 U.S.C. § 102(b) as anticipated by U.S. patent 5,455,554 to Sletson.

Sletson does not disclose the present invention since, among other things, Sletson does not disclose a method that includes forming coating of a high-resistance region 2-6 mm (approximately 80-240 mils) deep on a varistor body. Rather, Sletson discloses an insulating coating in the form of a thin film having a thickness of 5-20 mils. A mil equals 25.4 microns. Accordingly, the coating disclosed by Sletson has a thickness of only approx. 0.1-0.5 mm. The specification emphasizes the importance of a thick coating at page 2, lines 29-32.

Additionally, the coating recited in newly amended independent claim 5 includes  $\text{SiO}_2$ , which is a non-metallic high-resistance material. On the other hand, Sletson discloses a metal oxide coating composition comprising in various combinations a plurality of metal oxide compounds (see, for example, col. 2, lines 30-32 of Sletson). Furthermore, a coating of the material and thickness recited in claim 5 has semi-conducting properties rather than insulating properties as the much thinner metal oxide film disclosed by Sletson.

Thus, the coating including a thin insulating metal oxide film disclosed by Sletson does not disclose the present invention. On the contrary, the present invention includes forming a semi-conducting zone of a high-resistance material with normal varistor properties. These properties typically decrease by the depth of penetration, that is, the diffusion depth during sintering.

The present invention includes a region of enhanced resistivity in the envelope close to the surface of a varistor body. This results from the method of the present invention as recited in amended independent claim 5, which includes coating of the envelope surface of the unsintered varistor body with a high-resistance material including  $\text{SiO}_2$  and includes the subsequent sintering of the coated varistor body, wherein during sintering the high-resistance material diffuses into the surface of the varistor body to a depth of 2-6 mm. This zone of enhanced resistivity having a depth of 2-6 mm results in an essentially reduced current density in the rim of the varistor body, whereby a substantially improved energy absorption capability is obtained.

Since the rim of the varistor body is a sensitive area and important for the energy absorption capability, for example due to small defects, it is important to keep the current density low in this area. A zone of less than 1 mm close to the envelope surface of a varistor body and, in particular, a zone of less than 0.5 mm disclosed by Sletson, has no effect at all. The smooth transition area from conducting to semi-conducting obtained by the present invention significantly reduces the mechanical stress on the varistor material at high currents flowing through the body of the block.

The electrical field across ZnO grains within or at the rim of a varistor block is much higher than the dielectrical strength of air. Therefore, the rim of the ZnO block must be isolated from the surrounding atmosphere (normally air) in order to avoid flashover of the ZnO block when it conducts current. A thin layer on the order of the 0.1-0.5 mm layer disclosed by Sletson is not sufficient to obtain the necessary insulation strength, particularly if defects are present in the rim of the block. The present invention can provide the necessary safety margin in this regard.

In view of the above, Sletson does not disclose all elements of the present invention as recited in claims 5, 7, 8, and 11-13. Since Sletson does not disclose all elements of the present invention as recited in claims 5, 7, 8, and 11-13, the present invention, as recited in claims 5, 7, 8, and 11-13, is not properly rejected under 35 U.S.C. § 102(b). For an anticipation rejection under 35 U.S.C. § 102(b) no difference may exist between the claimed invention and the reference disclosure. *See Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q. 841 (C.A.F.C. 1984).

Along these lines, anticipation requires the disclosure, in a cited reference, of each and every recitation, as set forth in the claims. *See Hodosh v. Block Drug Co.*, 229 U.S.P.Q. 182 (Fed. Cir. 1986); *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985); *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986); and *Akzo N.V. v. U.S. International Trade Commissioner*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986).

In view of the above, the reference relied upon in the office action does not disclose patentable features of the present invention. Therefore, the reference relied upon in the office

action does not anticipate the present invention. Accordingly, Applicants respectfully request withdrawal of the rejection based upon the cited reference.

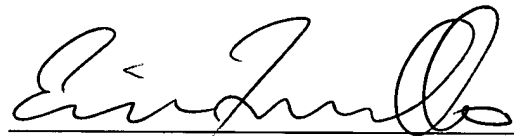
In conclusion, Applicants respectfully request favorable reconsideration of this case and early issuance of the Notice of Allowance.

If an interview would facilitate the prosecution of this case, Applicants urge the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit overpayment associated with this communication to Deposit Account No. 22-0261.

Respectfully submitted,

Date: 3-10-04

A handwritten signature in black ink, appearing to read "Eric J. Franklin", written over a horizontal line.

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